

FIG.1

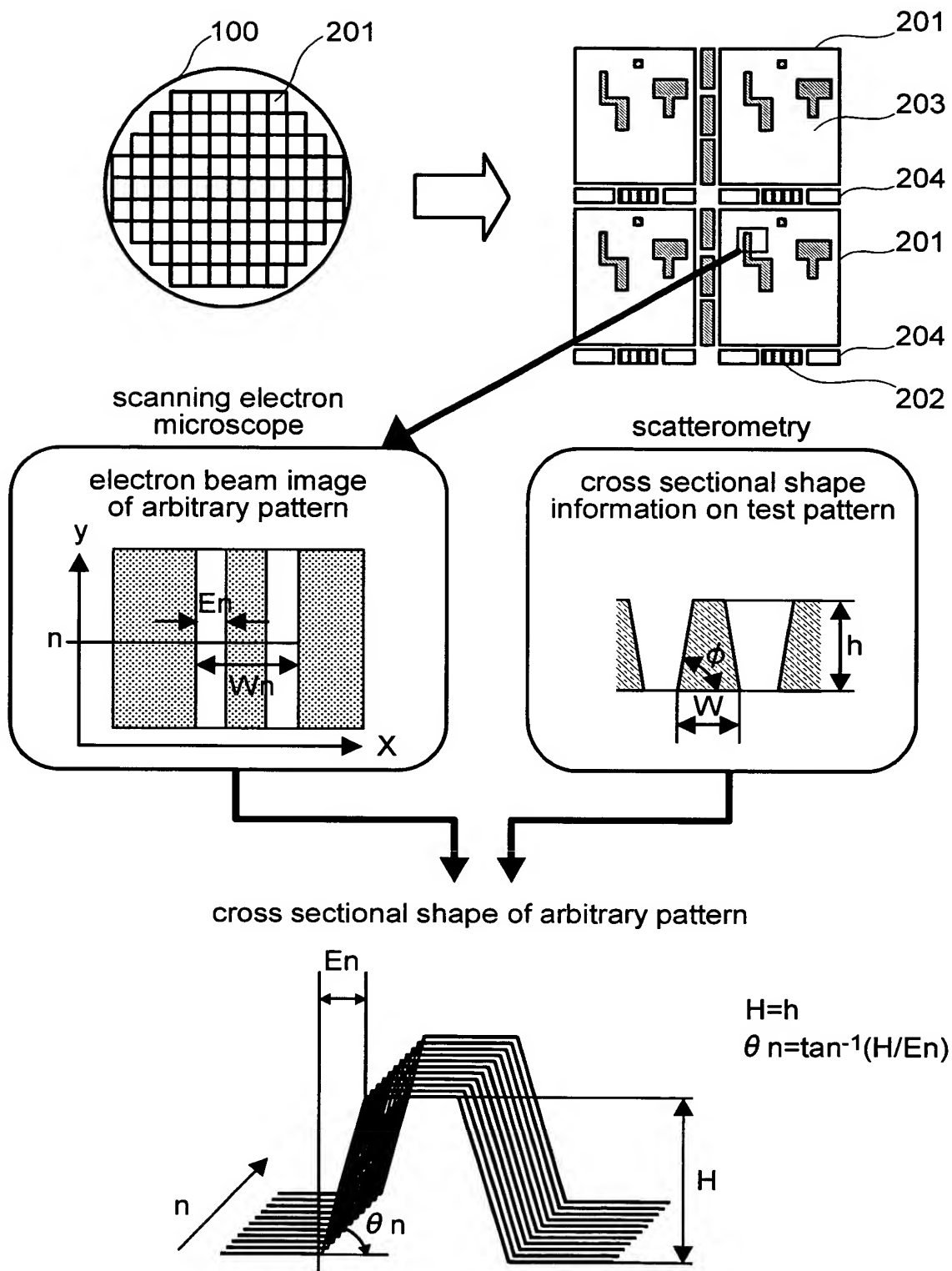


FIG.2

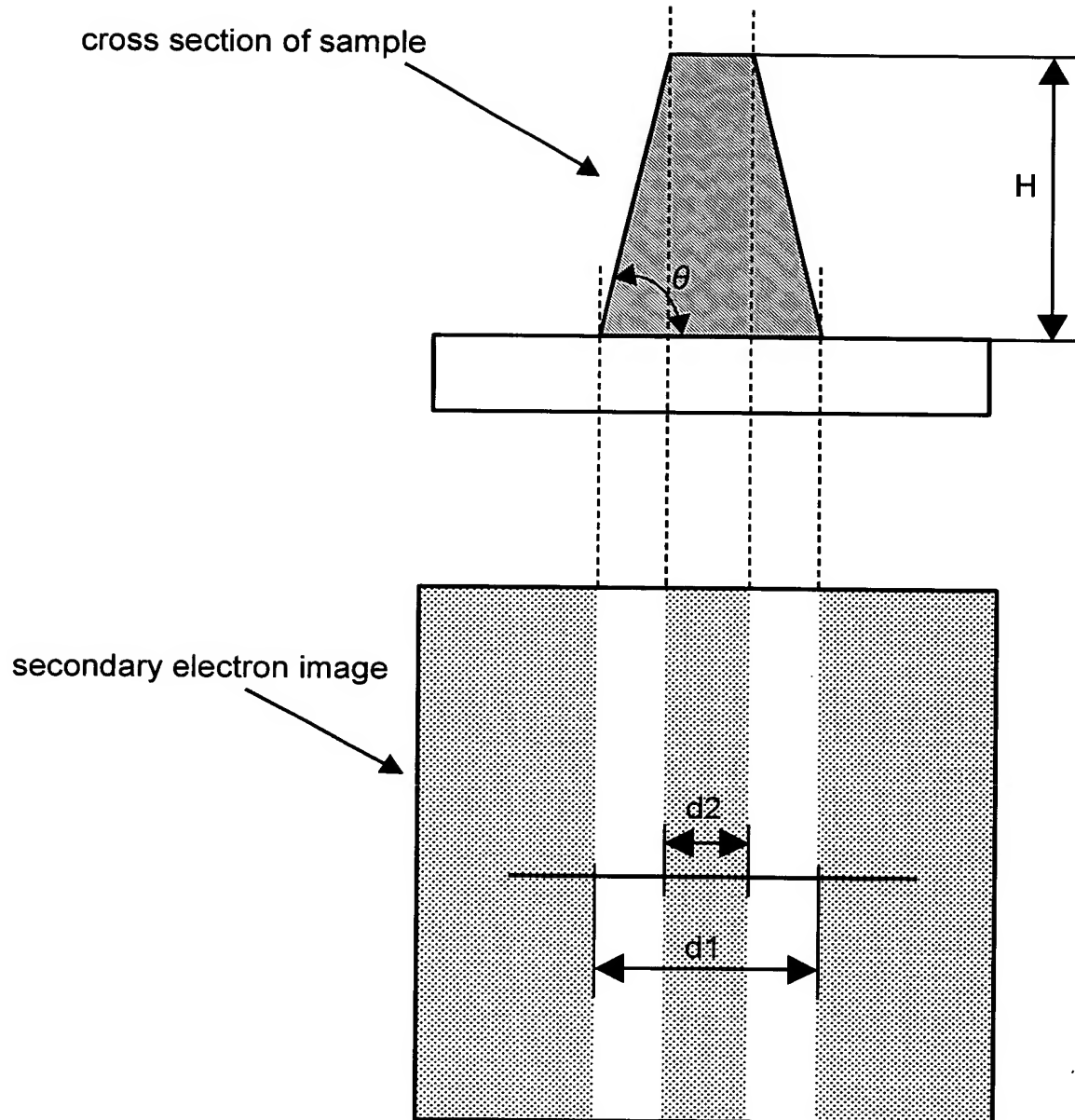


FIG.3

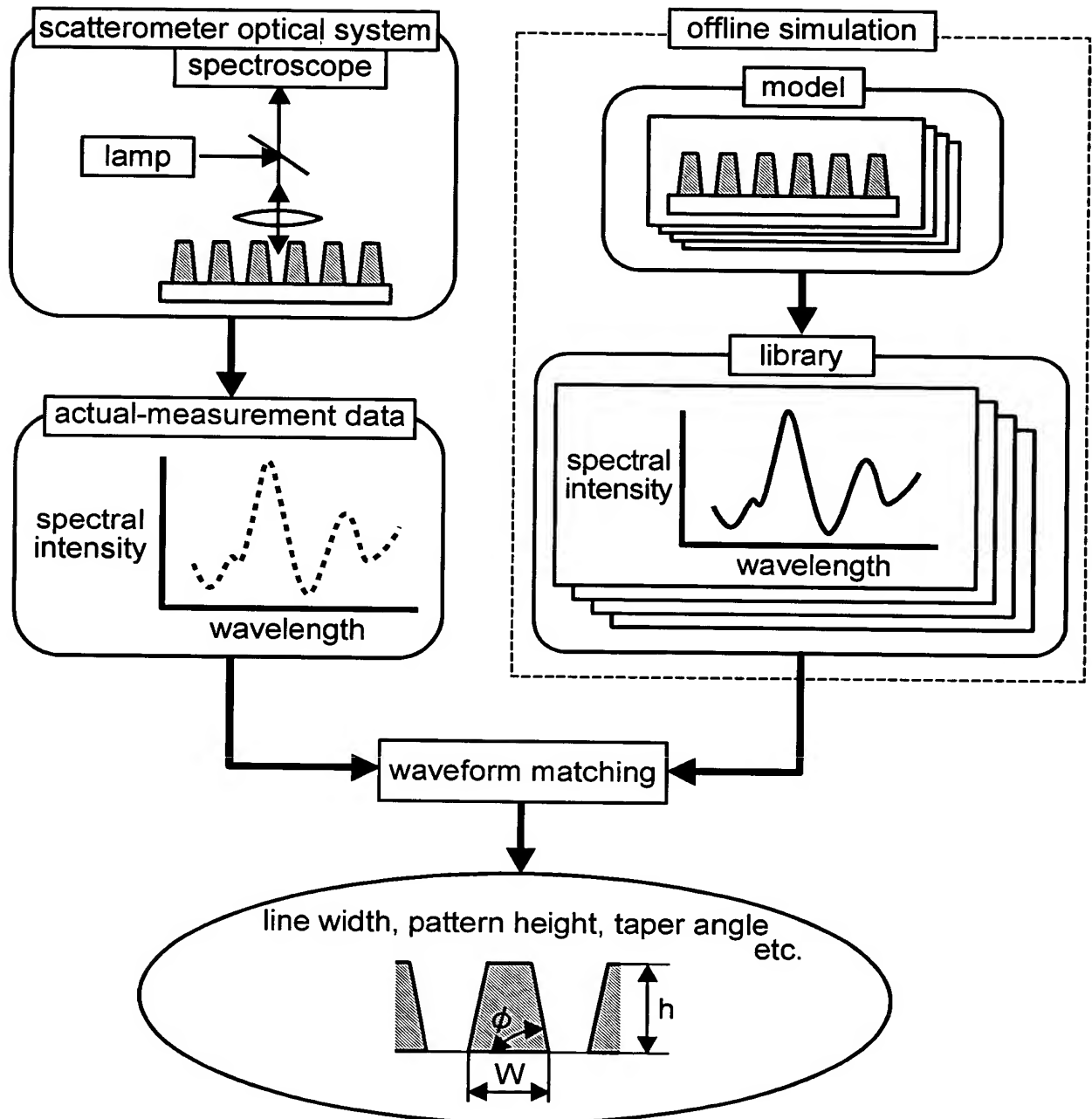
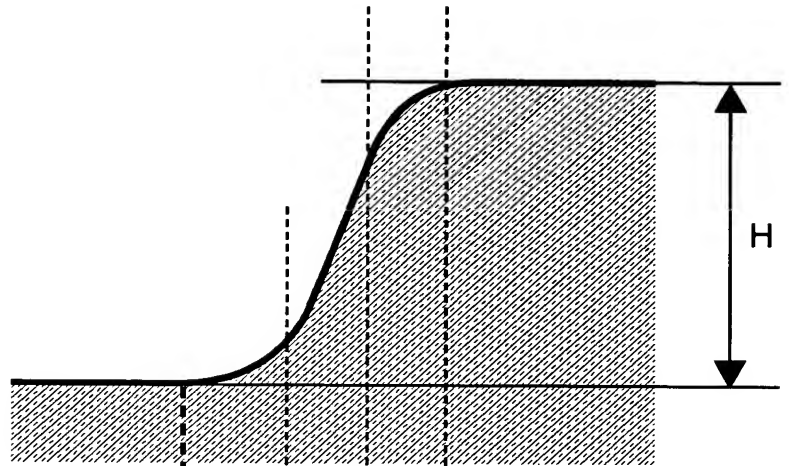
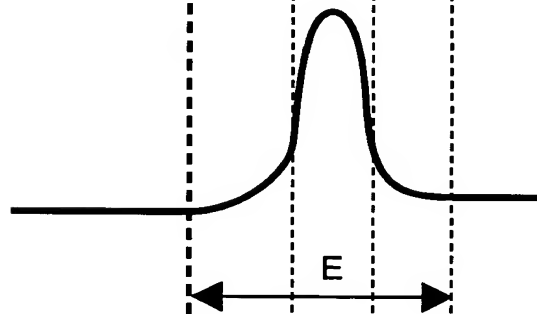


FIG.4

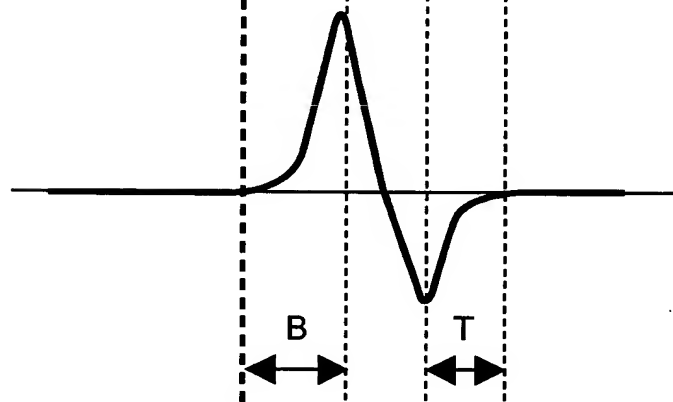
(a) cross sectional shape



(b) signal waveform



(c) first-order differentiation waveform



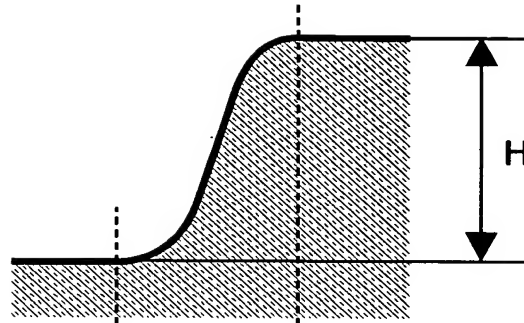
average slope angle: $\tan^{-1}(H/E)$

bottom roundness: B/H

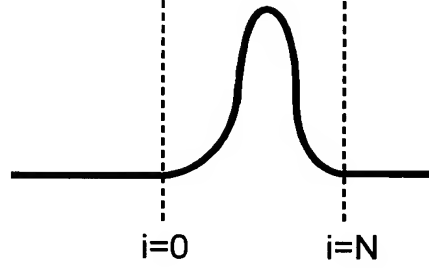
top roundness: T/H

FIG.5

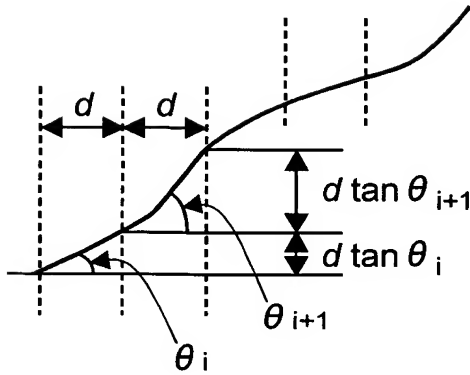
(a) cross sectional shape



(b) waveform



(c)



$$SE_i = a \cdot \frac{1}{\cos \theta_i} + b \quad \dots (5.1)$$

$$H = \sum_{i=0}^N d \cdot \tan \theta_i \quad \dots (5.2)$$

FIG.6

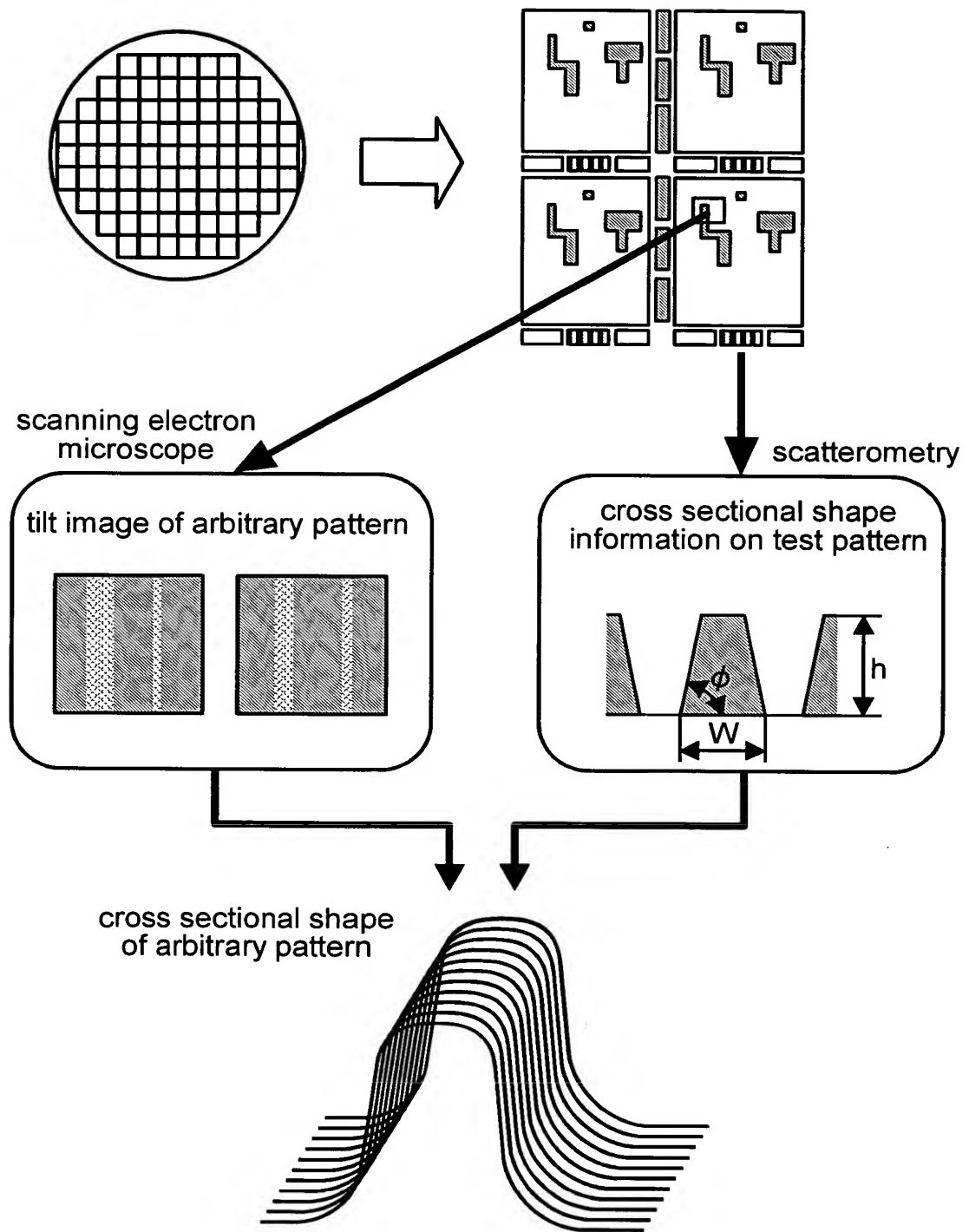
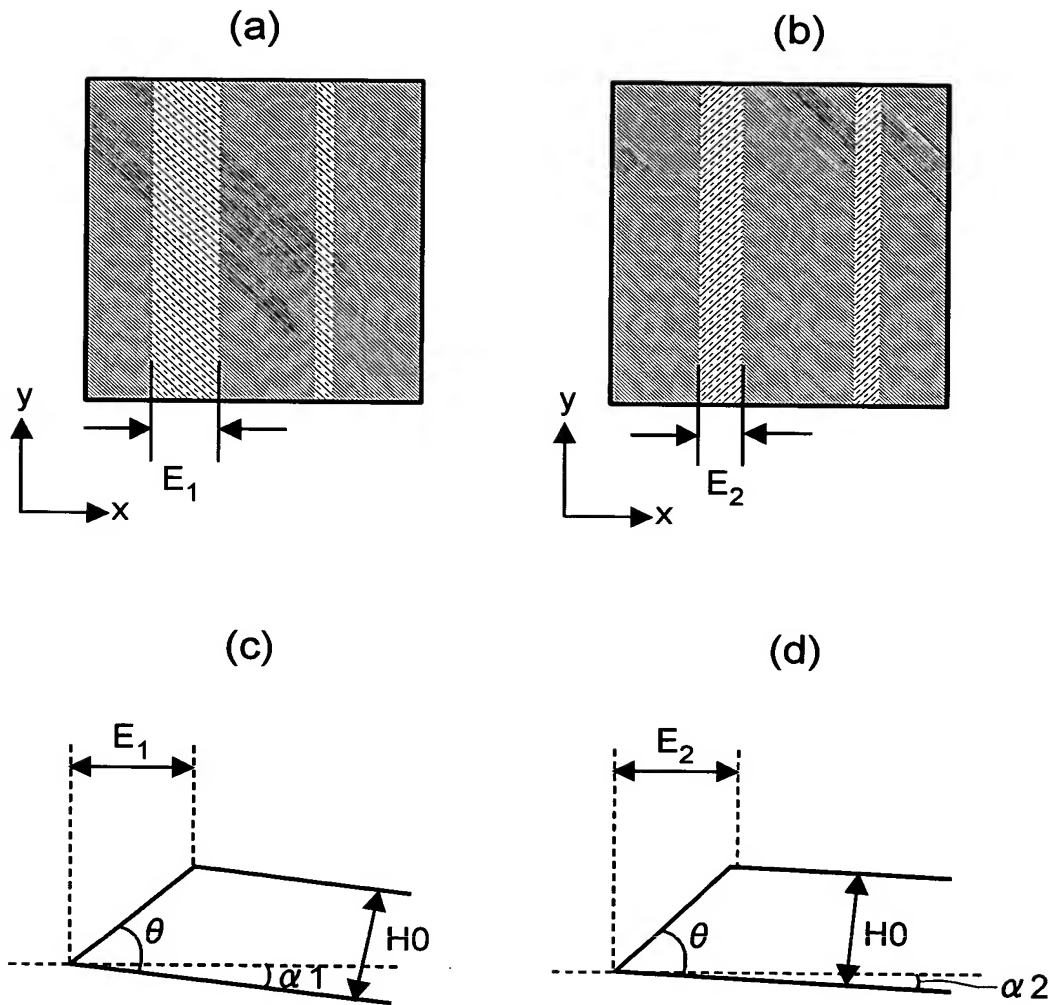


FIG.7



$$\theta = \tan^{-1} \frac{E_1 \cos \alpha_2 - E_2 \cos \alpha_1}{E_1 \sin \alpha_2 - E_2 \sin \alpha_1} \dots (7.1)$$

$$H_0 = \frac{E_1 \sin \theta}{\cos(\theta + \alpha_1)} \dots (7.2)$$

FIG.8

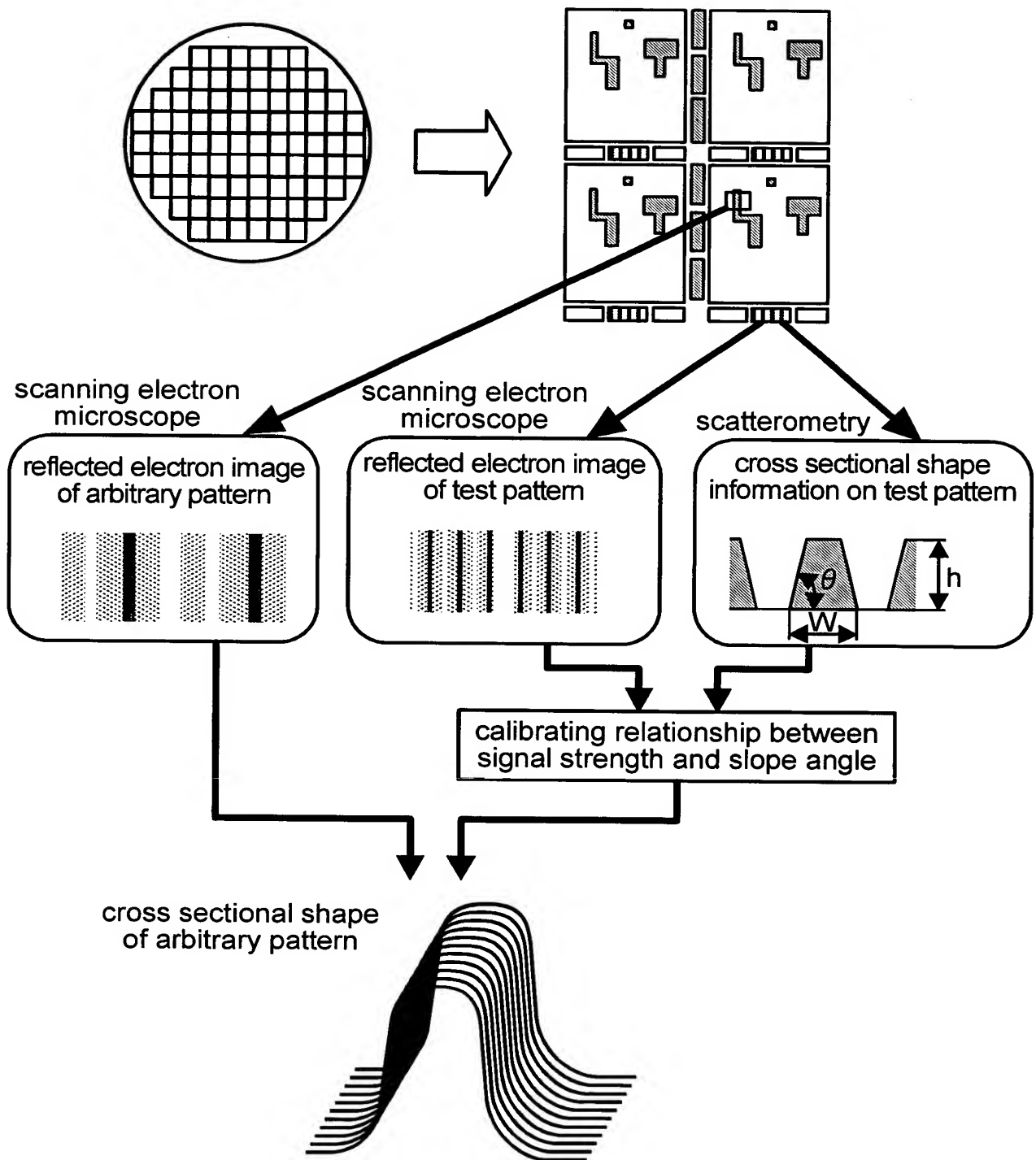


FIG.9

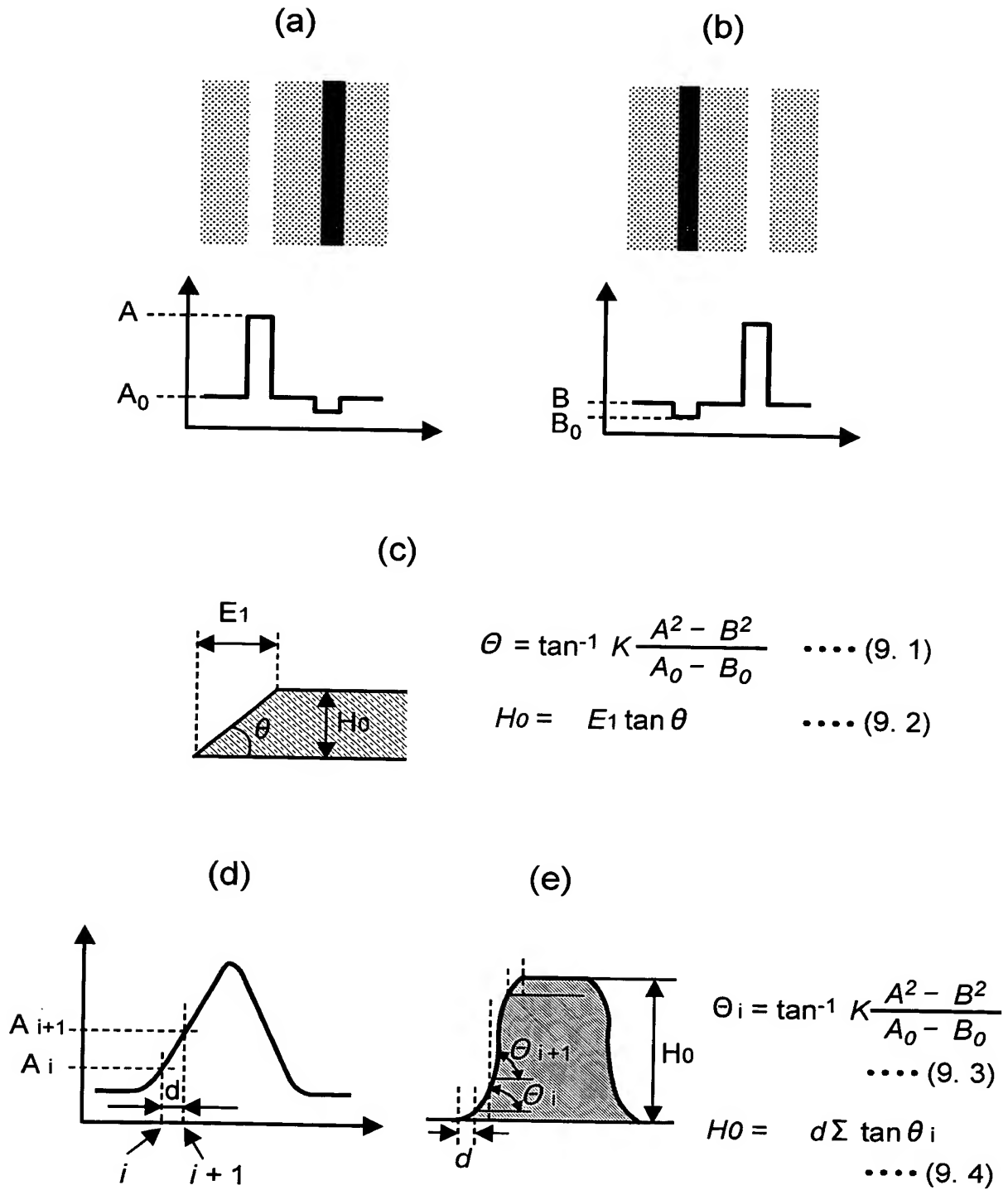


FIG.10

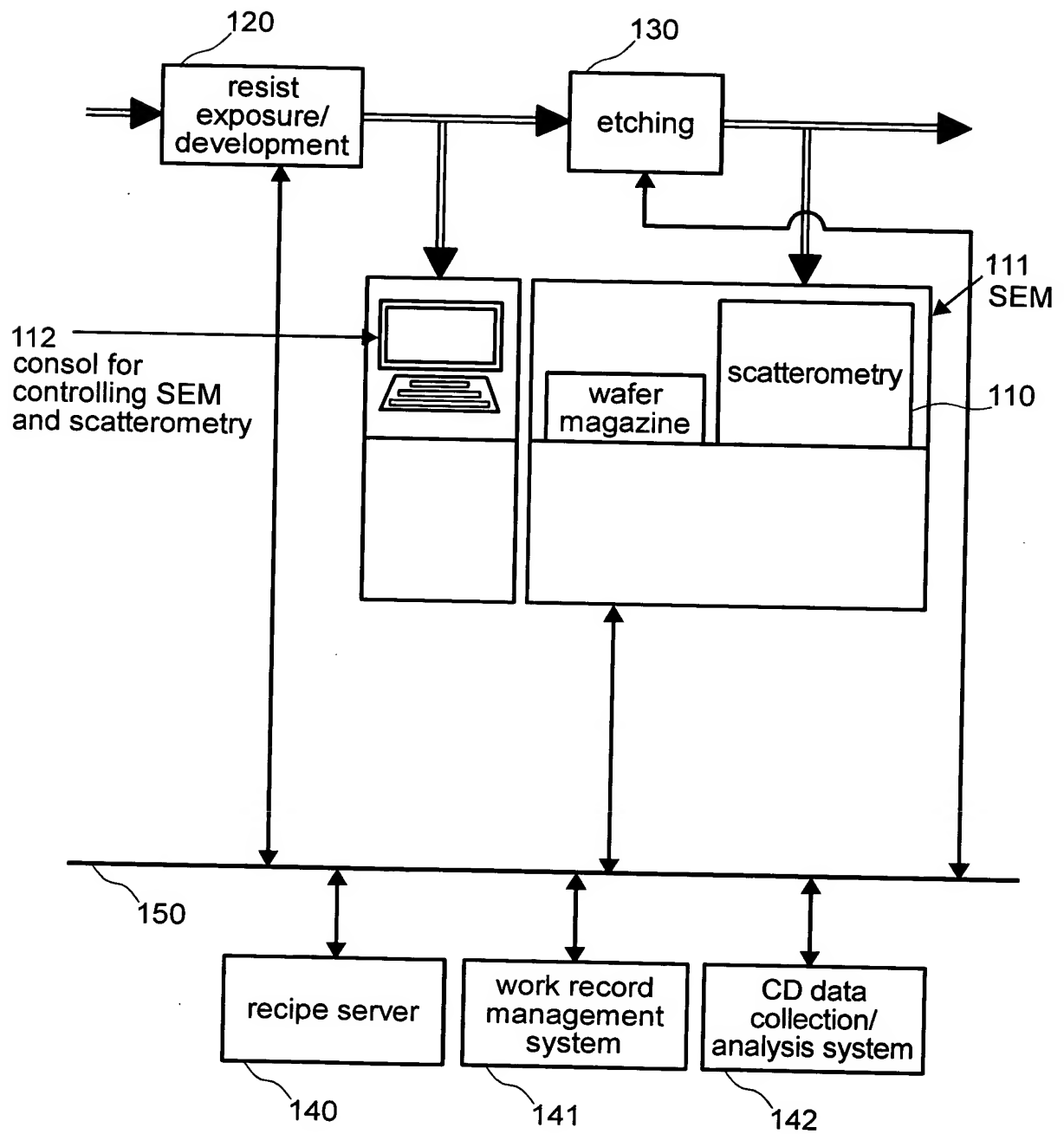


FIG.11

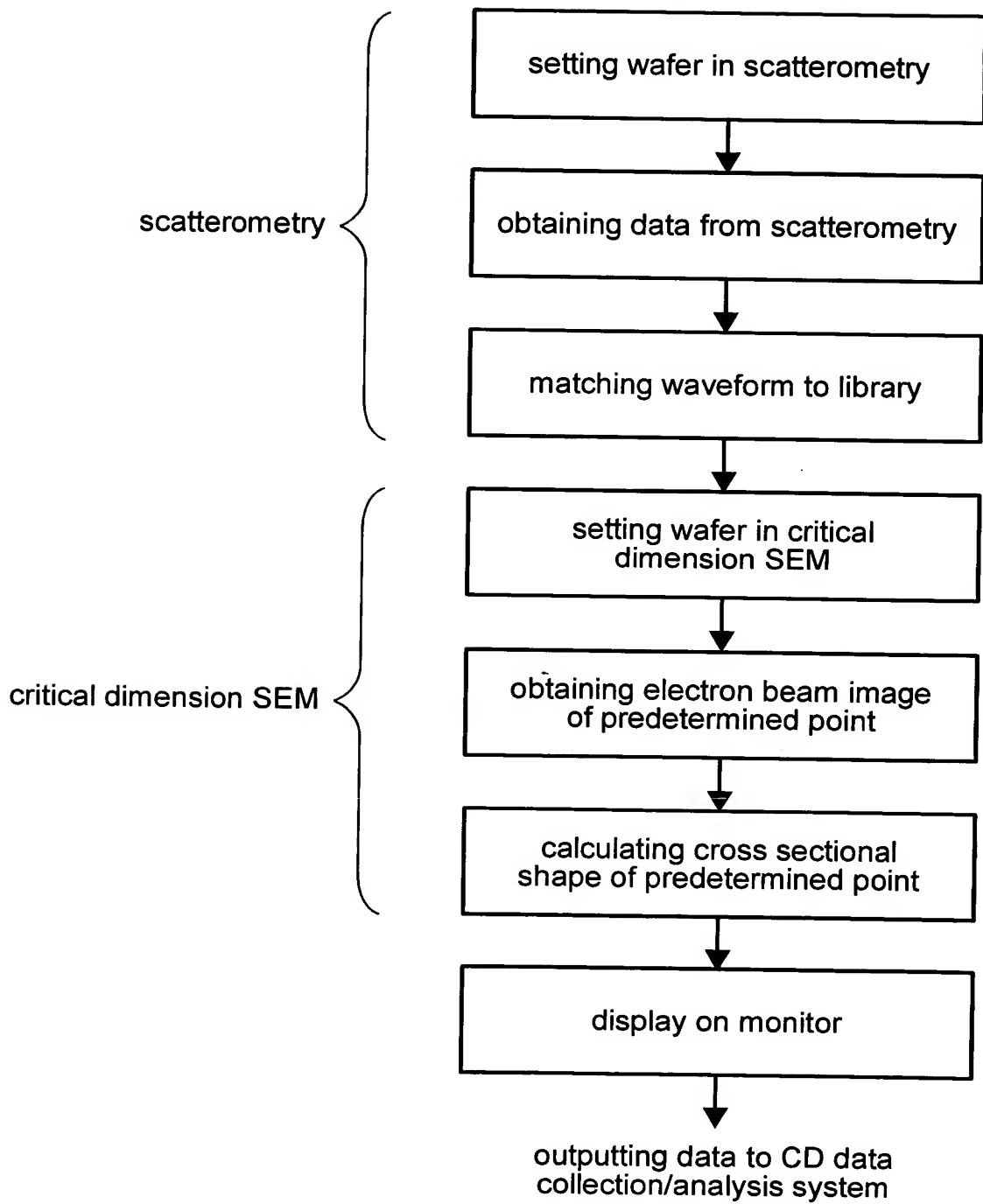


FIG.12

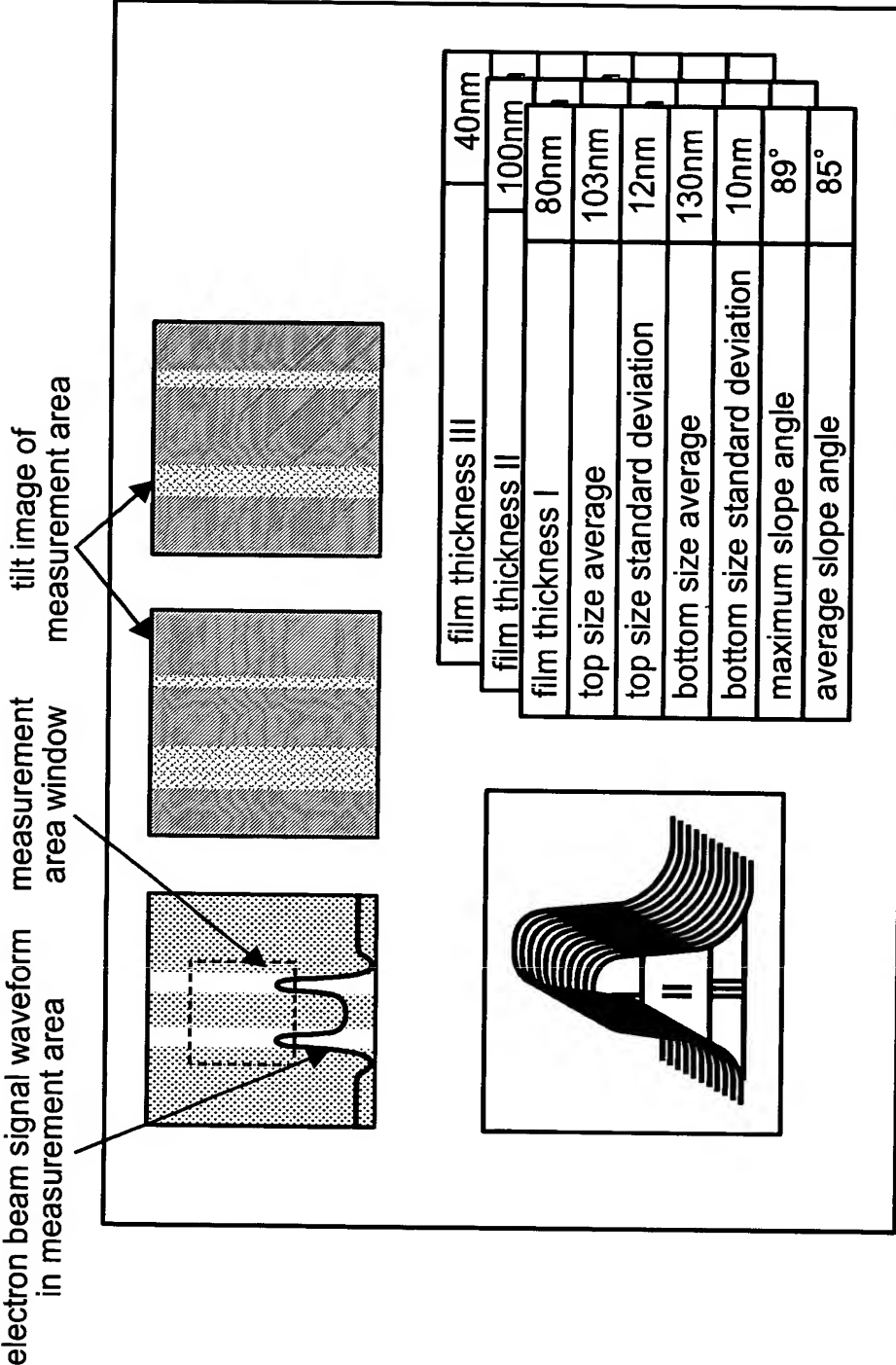


FIG.13

